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EXAMINER JEAN GILLES, JUDE				
ART UNIT 2143		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/795,923

Applicant(s)

KEGEL, DANIEL

Examiner

JUDE J. JEAN GILLES

Art Unit

2143

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

This Action is responsive to the Reply filed on 12/27/2007.

Response to Amendment/Arguments

2. In the claims, 1-35 remain pending in the application with claims 1, 21, 26 and 31 have been amended to correct issues unrelated to the scope of the claims. No claim has been cancelled. Claims 1-35 represent a method and apparatus for an "SIMULATING A LARGE NUMBER OF USERS."

Applicant's arguments with respect to independent claims 1, 11, 21, 26, and 31 have been carefully considered, but are not deemed fully persuasive. Applicant's arguments are deemed moot in view of the existing ground of rejection as explained here below. Applicants' cosmetic amendments to certain claims are not properly made and as to perhaps place them in condition for allowance.

The dependent claims stand rejected as articulated in the First Office Action and all objections not addressed in Applicant's response are herein reiterated.

In response to Applicant's arguments, 37 CFR § 1.11(c) requires applicant to "clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must show the amendments avoid such references or objections."

Applicant's Request for Reconsideration filed on 0 12/27/2007 is considered unpersuasive. However, because there exists the likelihood of future presentation of

this argument, the Examiner thinks that it is prudent to address Applicants' main points of contention:

A. The references may not properly be combined, and that the publications of Smith and Averbuj are unrelated. Applicants argue that it would not be logical to combine different aspects to result in the claimed subject matter. Succinctly, Smith discloses a telecommunications testing system and Averbuj discloses a memory testing system. These publications disclose different techniques that solve problems that are wholly unrelated to one another and problems that are in different technology areas. As such, their teachings may not be properly combined.

As to point A, it is the position of the Examiner that Smith and Averbuj when combine disclose the invention in substance as claimed. The Examiner submits that Smith teaches an Apparatus that includes a test computer for scheduling and controlling the execution of test scripts, a database for storing the scripts, input data and test results that typically take place in a Telecommunications system (see abstract). Smith is applying the test script to specifically test and monitor a telephony applications. Averbuj by the same token teaches command protocols that allow powerful algorithm or test scripts running on distributed memory modules. Note that system 204 of Smith is made of memory which can be used to store the test scripts and apply them to memory operations in accordance with the command protocol (see Averbuj, par. 0014). The teachings of smith and Averbuj are properly combined and the reason to combine is reiterated below (see rejection of claim 1).

B. Applicants contend that Moreover, please review the U.S. classifications of Smith and Averbuj. Smith is in class 379/29 and various other subclasses in class 379. Class 379 is for "telephonic communications" while subclass 29.01 is more specifically directed to "terminal arrangement to enable remote testing (e.g., testing interface)". Differently, Averbuj was published in class 714/33 which is directed to "error detection/correction and fault detection/recovery" "derived from analysis (e.g., of a specification or by stimulation)". Now in prosecution, Averbuj has been placed in class 714/718. Class 714/718 is specifically directed to "memory testing". The U.S.P.T.O.'s own classification system shows that Smith and Averbuj may not be properly combined as they are in wholly different patent classes.

As to point B, the Examiner again disagrees with this simplistic approach of viewing the combination of Smith and Averbuj. The mere fact that two patents/application are placed in different class does not necessarily mean they are completely different from each other are that they cannot be combined to address a specific need. This point of contention is a secondary objection and the Examiner has shown in the rejection of claim 1 below why it would have been obvious for an ordinary skill in the art to combine Smith and Averbuj the obtain the teachings of the current invention (see also MPEP § 2144 - § 2144.09)

C. As to the substance of claim 1, claim 1 recites a "protocol engine". The Office Action directs us to Averbuj for a teaching of protocol engines. However, the sequencers and test algorithms of Averbuj fail to teach or suggest the protocol engine claimed. Claim 1 is directed to "a method of creating network traffic". The term "protocol

Art Unit: 2143

engine" must be interpreted in view of the "method of creating network traffic" and the specification as a whole. The specification defines "network traffic" as "data units communicated over a network" which support one or more higher level or lower level communications protocols such as UDP, TCP, FTP, ISDN, PPP, FDDI and others. (Specification as published, paras. 0016 and 0026) As such, Averbuj fails to teach or suggest "invoking a protocol engine for each of the commands in the test script such that each protocol engine has an associated command" and "each protocol engine executing its associated command" as claimed. This is particularly so because Averbuj fails to teach or suggest a "protocol engine" as claimed.

As to point C, applicants are simply explaining the content of the specifications document, but not the actual claim limitations. The Protocol sequencers of Averbuj are interpreted to be the Protocol engines of the invention (see rejection of claim 1 below)

Examiner notes that no new matter has been added and that applicant has failed in presenting claims and drawings that delineate the contours of this invention as compared to the cited prior art. Applicant has failed to clearly point out patentable novelty in view of the state of the art disclosed by the references cited that would overcome the 103(a) rejections applied against the claims, the rejection is therefore sustained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-2, 5-12, 15-23, 26-28, and 31-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al (hereinafter Smith), U.S. Patent No. 6,091,802 in view of Averbuj et al (hereinafter Averbuj), U.S. Pub. No. 2005/0257109 A1.

Regarding claim 1, Smith teaches the invention substantially as claimed. Smith discloses a method of creating network traffic replicating activities of a large number of users in a telecommunications system (*see abstract*) comprising:

receiving a test script including a plurality of commands (*column 3, lines 40-48, continue in lines 59-67*)

invoking a script interpreter (*fig. 1, tester 100; column 3, lines 25-29, and column 4, lines 14-18; tester 100 is the script interpreter when invoked is capable of running and interpreting command and data of the test scripts*)

launching an application thread to execute the test script (*column 4, lines 61-65*).

However, Smith does not specifically disclose "invoking a protocol engine for each of the commands in the test script such that each protocol engine has an associated command", and "each protocol engine executing its associated commands".

In the same field of endeavor, Averbuj shows a mechanism for testing a telecommunication system by associating each Protocol engine to a testing algorithm command. Averbuj discloses "...*In particular, algorithm controller 26 sequentially delivers each command of the selected algorithm to sequencers 8, and proceeds from one command to the next upon receiving an acknowledge signal from each of sequencers 8. In this manner, algorithm controller 26 ensures that each sequencer 8 has completed application of a current command to memory modules 12 via memory interfaces 10 before proceeding to the next command...*" (see Averbuj, par. 0035, 0041, and 0042). The protocol sequencers are protocol engines and that each sequencer interprets the commands from the testing algorithms based on a command protocol (see Averbuj, abstract). In an attempt to facilitate simultaneous application of algorithms that contain many protocol commands to different modules applying each sequencer or engine its associated command makes sense in that it reduces the overall test time (see par. 12, and 0016).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system shown Smith, to employ the features disclosed by Averbuj in order to offer the flexibility of allowing a variety of test algorithms to easily be defined and maintained centrally in the form of generalized commands, thereby eliminating the need to store common test algorithms in a distributed fashion (see Averbuj, par. 0015). By this rationale, claim 1 is rejected.

Regarding claims 2, 5-12, 15-23, 26-28, and 31-33 the combination Smith-Averbuj discloses:

2. The method of claim 1 wherein the commands in the test script simulate actions taken by a network user (*see Smith, column 2, lines 19-32; column 3, lines 30-38*).

5. The method of claim 1 wherein the test script causes network traffic to be produced (*see Smith, abstract; also see column 4, lines 58-64; note "the execution of test scripts for transmitting voice and digital data, detecting voice and digital data, and evaluating voice and digital data..."*).

6. The method of claim 1 wherein each protocol engine executing its associated command comprises:

checking whether a maximum number of protocol engines has been exceeded performing the executing when the maximum number of protocol engines has not been exceeded. (*see Averbuj; par 0035, Smith teaches "In this manner, algorithm controller 26 ensures that each sequencer 8 has completed application of a current command to memory modules 12 via memory interfaces 10 before proceeding to the next command. Algorithm controller 26 may be programmatically or statically configured to establish the number of device blocks 6 and, in particular, sequencers 8 that are present within electronic device 2..."* Because each controller (protocol engine) has to complete application of a current associated command, and that the number of available sequencers is taken into consideration, one can conclude that if the maximum of

Art Unit: 2143

protocol engines has been exceeded, the next command had to wait and cannot be immediately executed

7. The method of claim 6 wherein the checking further comprises: waiting for a system defined amount of time until attempting to execute again (*see Averbuj; fig. 3; par. 0035; 0037-0038*; the amount of waiting time here is proportional to the time programmatically required by controller 26 to ensure that each sequencer 8 has finish completing its current command operation).

8. The method of claim 6 wherein the checking further comprises: sleeping until system resources sufficient for the executing of the protocol engine are available until attempting to execute again (*see Averbuj; fig. 3; par. 0035; 0037-0038*)

9. The method of claim 1 wherein the network traffic is comprised of a plurality of data units adhering to a plurality of communications protocols (*see Smith, column 5, lines 48-61*).

10. The method of claim 9 wherein the plurality of communication protocols includes at least one of Ethernet, User Datagram Protocol (UDP), Transmission Control Protocol (TCP), Internet Protocol (IP), File Transfer Protocol (FTP), or Hypertext Transfer Protocol (HTTP) (*see Smith, column 10, lines 59-65*).

Claim 11 is similar in scope to claim 1, but is recited in the form of a machine readable medium instead of a method. Claim 11 is rejected for the same reasons specified for the rejection of claim 1 above.

Claim 12 is similar in scope to claim 2, and is rejected for the same reasons specified for the rejection of claim 2 above.

Claim 15 is similar in scope to claim 5, and is rejected for the same reasons specified for the rejection of claim 5 above.

Claim 16 is similar in scope to claim 6, and is rejected for the same reasons specified for the rejection of claim 6 above.

Claim 17 is similar in scope to claim 7, and is rejected for the same reasons specified for the rejection of claim 7 above.

18. The machine readable medium of claim 11 coupled with a network testing system (*see Smith, column 3, lines 10-18; fig. 1; see also Smith, column 1, lines 13-17*).

19. The machine readable medium of claim 18 wherein the network testing system is coupled to a production network (*see Smith, column 3, lines 10-18; fig. 1, switched telephone network 104 is the production environment network coupled to the system*

Art Unit: 2143

tester 100; see also Smith, column 1, lines 13-17).

20. The machine readable medium of claim 19 wherein the network testing system is coupled to a test network (*see Smith, column 3, lines 10-18; fig. 1, communications system 102 network is a test network connected to system tester 100; see also Smith, column 1, lines 13-17).*

21. A system to create network traffic simulating activities of a large number of users (*see Smith, abstract*), the system comprising:

a plurality of script interpreter units in user space (*see Smith; abstract, column 3, lines 49-67, column 4, lines 44-65; processors 222 each is a script interpreter unit scheduling and controlling the execution of the test scripts running on user test computer 202*)

each script interpreter unit to interpret a script including a plurality of commands (*see Smith; abstract, column 3, lines 49-67, column 4, lines 44-65*),

an application thread in user space for each script interpreter unit (*see Smith; column 4, lines 58-65*)

a plurality of protocol engines in user space for each application thread, each protocol engine to execute a command included in one of the scripts is needed for the specified protocol, to execute the matching test script command (*see Averbuj, par. 0035, 0041, and 0042; the sequencers 8 which are the protocol engines operating device 2 and executing a test script command as specified by the associated protocol*),

an operating system in operating system space (*see Smith, column 4, lines 44-50; an example of the operating system in question here is WINDOWS NT*).

The same motivation and reason to combine used in the rejection of claim 1 is also valid for this claim. By this rationale, claim 21 is rejected.

22. The system of claim 21 wherein the system supports a plurality of communications protocols (*see Smith, column 5, lines 48-61*).

23. The system of claim 22 wherein the plurality of communications protocols includes at least Ethernet, User Datagram Protocol (UDP), Transmission Control Protocol (TCP), Internet Protocol (IP), and Hypertext Transfer Protocol (HTTP) (*see Smith, column 10, lines 59-65; see also Smith column 1, lines 1-17 whereas it is disclosed “...Telecommunication networks, such as conventional public or private switched telephone networks and more recently packet-switched networks and the Internet, interconnect human operators and telecommunication systems, which commonly run telephony applications including voice-mail, telephone banking systems, automated directory assistance, and multi-branched telephone customer service systems...”. A person of ordinary skill in the art knows that such telecommunication systems are capable of supporting and running on a plurality of protocols such as UDP, TCP, IP, and HTTP*).

Art Unit: 2143

26. A system to create network traffic simulating the activities of a large number of users (*see Smith; abstract*), the system comprising:

a plurality of script interpreter units in user space (*see Smith; abstract, column 3, lines 49-67, column 4, lines 44-65; processors 222 each is a script interpreter unit scheduling and controlling the execution of the test scripts running on user test computer 202*),

each script interpreter unit to interpret a script including a plurality of commands (*see Smith; abstract, column 3, lines 49-67, column 4, lines 44-65*),

an application thread in user space for each script interpreter unit (*see Smith; column 4, lines 58-65*),

a plurality of protocol engines in user operating system space for each application thread, each protocol engine to execute a command included in one of the scripts (*see Averbuj, par. 0035, 0041, and 0042; the sequencers 8 which are the protocol engines operating device 2 and executing a test script command as specified by the associated protocol*).,

an operating system in operating system space (*see Smith, column 4, lines 44-50; an example of the operating system in question here is WINDOWS NT*). The same motivation and reason to combine used in the rejection of claim 1 are also valid for this claim. By this rationale, claim 26 is rejected.

Claim 27, and 32 are similar in scope to claim 22, and are rejected for the same reasons specified for the rejection of claim 22 above.

Claim, 28, and 33 are similar in scope to claim 23, and are rejected for the same reasons specified for the rejection of claim 23 above.

31. A system to create network traffic simulating activities of a large number of users (see Smith, abstract), the system comprising:

a plurality of script interpreter units in user space (*see Smith; abstract, column 3, lines 49-67, column 4, lines 44-65; processors 222 each is a script interpreter unit scheduling and controlling the execution of the test scripts running on user test computer 202*)

each script interpreter unit to interpret a script including a plurality of commands (*see Smith; abstract, column 3, lines 49-67, column 4, lines 44-65*),

an application thread in operating system space for each script interpreter unit (*see Smith;, column 4, lines 58-65*),

a plurality of protocol engines in user operating system space for each application thread, each protocol engine to execute a command included in one of the scripts (*see Averbuj, par. 0035, 0041, and 0042; the sequencers 8 which are the protocol engines operating device 2 and executing a test script command as specified by the associated protocol*)

an operating system in operating system space (*see Smith, column 4, lines 44-50; an example of the operating system in question here is WINDOWS NT*). The same

motivation and reason to combine used in the rejection of claim 1 are also valid for this claim. By this rationale, claim 31 is rejected.

5. **Claims 3-4, 13-14, 24-25, 29-30, and 34-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith and Averbuj, in further view of Jameson U.S. Pub. No. 20030107596 A1

Regarding claim 3, the combination of Smith-Averbuj teaches the invention in substance as claimed. Smith-Averbuj discloses the method of creating network traffic as per claim 1, but fail to disclose the details of a method wherein the commands in the test script include extended operation operating system commands.

In an analogous art, Jameson shows the use of work operations, specific computer programs, or computer scripts that carry out computer actions through the use of commands. Jameson discloses *"The default set of work operations made available by a computer operating system is called the default command set of the operating system. In practice, default operating system command sets are always extended with additional programs to provide users with application-specific work operations or commands. Thus the total set of work operations available in a typical command line shell window is the union of the default operating system command set and the additional application-specific work operation set"* (See Jameson par. 0018). In order to increase the total number of available work operations or commands in a typical

software environment this approach works, as it can increase the command list options for effectively testing the system.

Accordingly, it would have been obvious for an ordinary skill in the art, at the time the invention was made to have incorporated the invention of Jameson with the teaching of Smith and Averbuj, for the purpose of "automating systems to replace manual human effort thereby improving the productivity of software developers, web media developers, and other humans that work with collections of computer files" (see *Jameson, par. 0006-0008*). By this rationale, **claim 3** is rejected.

Regarding claims 4, 13-14, 24-25, 29-30, and 34-35, the combination Smith-Averbuj-Jameson discloses:

4. The method of claim 3 wherein the extended operation operating system commands include "fetch," "verify," "fetch and verify," "fetch and ignore," "monitor," and "count" (see *Jameson par. 0018*). While Jameson does not spell out in his teaching the specific commands indicated above, Jameson teaches default operating system command sets that are extended with additional programs to provide users with application-specific commands. Accordingly it would have been obvious for a person of ordinary skill in the art to have incorporated specific commands such as "fetch," "verify," "fetch and verify," "fetch and ignore," "monitor," and "count" in the command sets of Jameson for the purpose of automating the systems and improving the productivity as stated by Jameson in par. 0006-0008. The same motivation and reason to combine Jameson

Art Unit: 2143

with Smith and Averbuj, used in the rejection of claim 1 is also valid for this claim. By this rationale, claim 4 is rejected.

Claims 13, 24, 29, and 34 are similar in scope to claim 3, and are rejected for the same reasons specified for the rejection of claim 3 above.

Claim 14, 25, 30, and 35 are similar in scope to claim 4, and are rejected for the same reasons specified for the rejection of claim 4 above.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2143

Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914.

The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn, can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3301.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-0800.

March 03, 2008

/J. J. J./

/Jude J Jean-Gilles/

Primary Examiner, Art Unit 2143